

ATTACHMENT 6:

Detailed Conservation Considerations for *Bridgeoporus nobilissimus*

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This document was created after the completion of the Species Fact Sheet and provides some more detailed considerations regarding *Bridgeoporus nobilissimus* management, based on collective knowledge from the US Forest Service Region 6 and BLM Oregon *Bridgeoporus nobilissimus* Work Group.

Assumptions:

Bridgeoporus nobilissimus mycelium may reside in small and medium diameter noble and Pacific silver fir snags and live trees growing in the vicinity of known sites; however, it apparently only fruits on large diameter trees, snags and stumps, generally greater than 36 inches in diameter. Most of the recommendations below are directed at managing the host stump/tree where the species is fruiting.

Noble fir requires high light levels and is shade intolerant. Noble fir needs light for germination and establishment, but older stands are usually closed-canopy.

Noble fir in the Cascade Range is more abundant on the landscape now than it was 50 years ago due to intensive planting in stands that had been occupied with Douglas-fir and western hemlock. However, in the Coast Range, noble fir has not been planted much and historically noble fir stands resulted from stand-replacing fires. Current fires are often not allowed to burn so there may be less noble fir on the landscape now and there certainly will be less in the future.

Considerations for Management of Known Sites

1. To provide protection of *Bridgeoporus nobilissimus* conks from management activities, evaluate the potential that the activities could result in disturbance to the conks or host substrate, either through direct physical damage, or changes in microsite characteristics. Activities to consider include timber sales and related activities, pre-commercial thinning, fertilization, other timber stand improvement projects, and special forest product sales.
2. Consider a no-activity management area of 50-150 feet around known sites, depending on the management activity.
3. Fertilization can increase the rate of decomposition of suitable stumps and snags (Castellano, pers. comm. 2001). Consider a larger protective area around known sites to account for drift associated with aerial fertilizer application.

4. The size and presence of noble fir within occupied stands could be enhanced through standard silvicultural methods, including planting, selective thinning, and girdling of other tree species. These activities should occur outside of the protective area. Some tree girdling may be appropriate within the protective area but take care not to girdle trees that could eventually fall onto the occupied substrate. Planting noble fir within the protective area as space allows would also be appropriate.

5. Monitor conks annually and survey surrounding habitat for newly emerged conks. It is advisable to photograph the conks to track their size and vigor.

6. Consider protecting adjacent unoccupied stumps and snags because they may harbor *Bridgeoporus nobilissimus* mycelium and may produce a fruiting body in the future.

Near-term Actions for Creating Habitat for *Bridgeoporus nobilissimus*

1. Thin managed stands to grow large diameter noble fir and future snags. Consider using dominant tree release or creating gaps around noble fir.

2. Use thinning prescriptions that favor noble fir over other species.

3. Thin unmanaged forests to select for noble fir and to promote large diameter trees.

4. As possible, avoid fertilizing stands containing suitable stumps or snags as fertilizer increases wood decomposition and therefore shortens to length of time that the substrate is suitable.

Long-term Actions for Creating Habitat for *Bridgeoporus nobilissimus*

1. Culture *Bridgeoporus nobilissimus* in a lab and inoculate noble fir in both managed and unmanaged stands with *B. nobilissimus* mycelium, particularly in reserve areas.

2. To encourage habitat development in response to global warming, encourage noble fir at higher elevations (4,000 – 5,000 feet) as the opportunity arises, such as in a timber sale project. Use silvicultural prescriptions as suggested above to create larger diameter trees.

3. Look for opportunities to establish new noble fir stands where disturbance such as windthrow, insect and disease pockets or fire create forest openings. Plant these trees at a wide spacing to encourage large diameter growth.